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UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION I

Wells G & H
10.7
240702
CERCLA

IN THE MATTER OF:

Wells G & H Superfund Site
Woburn, Middlesex County, Massachusetts

Olympia Nominee Trust,

Respondent

ADMINISTRATIVE ORDER ON
CONSENT FOR REMOVAL ACTION

U.S. EPA Region I
CERCLA Docket No. 01-2003-0023

Proceeding Under Sections 104, 106(a), and
122 of the Comprehensive Environmental
Response, Compensation, and Liability Act,
as amended, 42 U.S.C. §§ 9604, 9606(a),
and 9622

I. JURISDICTION AND GENERAL PROVISIONS

1. This Administrative Order on Consent ("Order") is entered into voluntarily by the United States Environmental Protection Agency ("EPA") and the Olympia Nominee Trust. This Order provides for the performance of a time critical removal action by Respondent at or in connection with the Olympia source area at the Wells G & H Superfund Site located in Woburn, Massachusetts.

2. This Order is issued under the authority vested in the President of the United States by Sections 104, 106(a), and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9604, 9606(a), and 9622, as amended ("CERCLA").

3. EPA has notified the Commonwealth of Massachusetts (the "State") of this action pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

4. EPA and the Respondent recognize that this Order has been negotiated in good faith and that the actions undertaken by the Respondent in accordance with this Order do not constitute an admission of any liability. Respondent does not admit, and retains the right to controvert in any subsequent proceedings other than proceedings to implement or enforce this

Order, the validity of the findings of facts, conclusions of law, and determinations in Sections IV and V of this Order. The Respondent agrees to comply with and be bound by the terms of this Order and further agrees that it will not contest the basis or validity of this Order or its terms.

II. PARTIES BOUND

5. This Order applies to and is binding upon EPA and upon the Respondent and its successors and assigns. Any change in ownership or corporate status of the Respondent including, but not limited to, any transfer of assets or real or personal property shall not alter such Respondent's responsibilities under this Order.

6. The Respondent shall ensure that its contractors, subcontractors, and representatives receive a copy of this Order and comply with this Order. The Respondent shall be responsible for any noncompliance with this Order.

III. DEFINITIONS

7. Unless otherwise expressly provided herein, terms used in this Order which are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Order or in the appendices attached hereto and incorporated hereunder, the following definitions shall apply:

a. "Action Memorandum" shall mean the EPA Action Memorandum relating to the Site signed on March 3, 2003, by the Acting Director, Office of Site Remediation and Restoration, EPA Region I, and all attachments thereto. The "Action Memorandum" is attached as Appendix A.

b. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601, *et seq.*

c. "Day" shall mean a calendar day. In computing any period of time under this Order, where the last day would fall on a Saturday, Sunday, or Federal holiday, the period shall run until the close of business of the next working day.

d. "Effective Date" shall be the effective date of this Order as provided in Section XXIX.

e. "EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

f. "The MA DEP" shall mean the Massachusetts Department of Environmental

Protection and any successor departments or agencies of the Commonwealth.

g. "Interest" shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually on October 1 of each year, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year.

h. "National Contingency Plan" or "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

i. "Order" shall mean this Administrative Order on Consent and all appendices attached hereto (listed in Section XXVIII). In the event of conflict between this Order and any appendix, this Order shall control.

j. "Olympia Property" shall mean the property located at 60 Olympia Avenue in Woburn, Massachusetts and depicted generally on the map included as Appendix B.

k. "Paragraph" shall mean a portion of this Order identified by an Arabic numeral.

l. "Parties" shall mean EPA and the Respondent.

m. "RCRA" shall mean the Solid Waste Disposal Act, as amended, 42 U.S.C. §§ 6901, *et seq.* (also known as the Resource Conservation and Recovery Act).

n. "Respondent" shall mean the Olympia Nominee Trust

o. "Section" shall mean a portion of this Order identified by a Roman numeral.

p. "Site" shall mean the Wells G & H Superfund Site, which includes the Olympia Property, located in Woburn, Middlesex County, Massachusetts and depicted generally on the map attached as Appendix C.

q. "Commonwealth" or "State" shall mean the Commonwealth of Massachusetts.

r. "Statement of Work" or "SOW" shall mean the statement of work for implementation of the removal action, as set forth in Appendix D to this Order, and any modifications made thereto in accordance with this Order.

s. "Waste Material" shall mean 1) any "hazardous substance" under Section

101(14) of CERCLA, 42 U.S.C. § 9601(14); 2) any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); 3) any "solid waste" under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27); and 4) any "hazardous material" under the Massachusetts Contingency Plan.

t. "Work" shall mean all activities the Respondent is required to perform under this Order.

IV. FINDINGS OF FACT

8. The Wells G & H Superfund Site includes the approximately 330-acre aquifer and land mass area located within the zone of contribution to the City of Woburn's two municipal drinking water wells known as Wells G & H.

9. Wells G & H are located in the sand and gravel aquifer of the Aberjona River basin within the Mystic River watershed. The area surrounding the wells within the Site boundaries is a mixed use area consisting of light industry, commercial businesses, industrial parks, residences, and recreational property. The area surrounding the Site is dominated by industrial and commercial property to the north, and residential property to the south.

10. The Aberjona River, which begins in Reading, Massachusetts, flows through the Site and eventually reaches the Mystic Lakes in Winchester. A substantial wetland area associated with the Aberjona River floodplain is located on either side of the River.

11. In 1979, the MA DEP, formerly the Massachusetts Department of Environmental Quality Engineering, prompted by a local disposal problem, tested the water supply from Wells G & H. Several chlorinated volatile organic compounds, including 1,1,1-trichloroethane (1, 1, 1-TCA), trans-1,2-Dichloroethene, tetrachloroethene (PCE), and trichloroethene (TCE), were detected at concentrations ranging from 1 to 400 parts per billion (ppb). As a result of this sampling, the wells were immediately shut down. Woburn then revived an existing agreement with the Metropolitan District Commission (now the Massachusetts Water Resources Authority or MWRA), to compensate for the lost water supply. The MWRA continues to supplement Woburn's water supply.

12. As a result of the contamination at Wells G & H and disposal problems discovered at the Industriplex Superfund Site just north of Wells G & H, EPA conducted a hydrogeologic investigation and groundwater quality evaluation of a ten square mile portion of East and North Woburn. This investigation was conducted in 1981. The purpose of the investigation was to determine the extent and degree of contamination in the aquifer, and to identify the sources of contamination. Based on the direction of groundwater flow, the areal extent of groundwater contamination, and property inspections, EPA identified five properties as sources of contamination to the aquifer that services Wells G & H. These five sources were located within

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a one square mile area surrounding the wells on either side of the River within the Site boundary.

13. The following five properties were identified as sources of contamination - W.R. Grace Co. - Conn. property, the Unifirst Corporation property, the New England Plastics property, Wildwood Conservation Corporation property (also referred to as the Beatrice property), and the Olympia Nominee Trust property. The Wells G & H site was listed as a Superfund Site on the National Priorities List (NPL) on December 21, 1982.

14. From approximately 1983 to 1989, numerous investigations were conducted by various property owners, EPA, and the MA DEP to determine the nature and extent of contamination. EPA also issued Administrative Orders to several of the property owners that included installation of monitoring wells and drum removal actions.

15. EPA issued a Record of Decision (ROD) on September 14, 1989 which called for cleanup of all five source areas, including the Olympia Property, and extraction and treatment of contaminated groundwater. In addition, EPA identified a small area of PAH contaminated soil on the Olympia Property that needed to be addressed.

16. In 1991, EPA entered into a Consent Decree with W.R. Grace Co. - Conn., Unifirst Corporation, New England Plastics, and the Wildwood Conservation Corporation as well as others, in which these parties basically agreed to implement the remedies selected in the ROD for their own properties.

17. During the 1990s, remedial actions were implemented at the other four source areas. Over 200 million gallons of groundwater have been pumped and treated, and over 4000 pounds of volatile organic contaminants have been removed. Groundwater pump and treat systems are in their 9th year of operation at two of the properties. A combined pump and treat/air sparging/soil vapor extraction system is in its fourth year of operation at a third property. Another soil vapor extraction system successfully remediated soil at the fourth property.

18. The Respondent did not enter into the 1991 Consent Decree.

19. EPA performed extensive sampling and analysis of soil and groundwater during the spring of 2002 on the Olympia Property. The recent data indicates the presence of trichloroethylene (TCE) up to 110 mg/kg and polychlorinated biphenyls (PCBs) up to 22 mg/kg in soils at the former drum disposal area on the Olympia Property.

20. TCE-contaminated soils are present at depths ranging from approximately eight to twenty feet below grade. These soils represent a significant and ongoing source of contamination to the groundwater and the Aberjona River.

21. The PCB-contaminated soils are located at the surface in an area devoid of vegetation and represent a direct contact threat to those who may enter this portion of the Olympia Property.

22. The site-specific risk-based cleanup levels for the Site contained in the ROD for these constituents in soil are 0.0127 mg/kg for TCE and 1.04 mg/kg for PCBs.

V. CONCLUSIONS OF LAW AND DETERMINATIONS

23. Based on the Findings of Fact set forth above, and the Administrative Record supporting this removal action, EPA has determined that:

a. The Olympia Property is a "facility" as defined by Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

b. The contamination found on the Olympia Property, as identified in the Findings of Fact above, includes "hazardous substances" as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

c. The Respondent is a "person" as defined by Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

d. The Respondent is a responsible party under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), and is jointly and severally liable for performance of this response action and for response costs incurred and to be incurred at the Site. The Respondent is the "owner" of the facility, as defined by Section 101(20) of CERCLA, 42 U.S.C. § 9601(20), and within the meaning of Section 107(a)(1) of CERCLA, 42 U.S.C. § 9607(a)(1).

e. The conditions described in Paragraphs 19, 20, 21, and 22 the Findings of Fact above constitute an actual or threatened "release" of a hazardous substance from the facility as defined by Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

f. The removal action required by this Order is necessary to protect the public health, welfare, or the environment and, if carried out in compliance with the terms of this Order, will be considered consistent with the NCP, as provided in Section 300.700 (c)(3)(ii) of the NCP.

VI. ORDER

24. Based upon the foregoing Findings of Fact, Conclusions of Law, Determinations, and the Administrative Record for this Site, it is hereby Ordered and Agreed that Respondent shall comply with the following provisions, including, but not limited to, all attachments to this Order and all documents incorporated by reference into this Order, and perform the following actions:

**VII. DESIGNATION OF CONTRACTOR, PROJECT COORDINATOR,
AND ON-SCENE COORDINATOR**

25. The Respondent shall retain one or more contractors to perform the Work and shall notify EPA of the name(s) and qualification(s) of such contractor(s) **within ten (10) days** of the Effective Date of this Order. The Respondent has retained and EPA has approved GeoInsight as Respondent's contractor to perform the Work. The Respondent shall also notify EPA of the name(s) and qualification(s) of any other contractor(s) or subcontractor(s) retained to perform the Work at least **fourteen (14) days** prior to commencement of such Work. EPA retains the right to disapprove of any or all of the subcontractors retained by the Respondent. If EPA disapproves of a selected subcontractor, Respondent shall retain a different subcontractor and shall notify EPA of that subcontractor's name and qualifications **within seven (7) days** of EPA's disapproval. The proposed subcontractor must demonstrate compliance with ANSI/ASQC E-4-1994, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs" (American National Standard, January 5, 1995), by submitting a copy of the proposed contractor's Quality Management Plan ("QMP"). The QMP should be prepared in accordance with "EPA Requirements for Quality Management Plans (EPA QA/R-2)" (EPA/240/B-01/002), or equivalent documentation as required by EPA.

26. **Within ten (10) days** of the Effective Date, the Respondent shall designate a Project Coordinator who shall be responsible for administration of all actions by the Respondent required by this Order and shall submit to EPA the designated Project Coordinator's name, address, telephone number, and qualifications. The Respondent has designated and EPA has approved Michael Webster as Project Coordinator. To the greatest extent possible, the Project Coordinator shall be present on Site or readily available during Site work. EPA retains the right to disapprove of the designated Project Coordinator. If EPA disapproves of the designated Project Coordinator, the Respondent shall retain a different Project Coordinator and shall notify EPA of that person's name, address, telephone number, and qualifications **within seven (7) days** following EPA's disapproval. To the greatest extent possible, the Project Coordinator shall be present on Site or readily available during Site work. Receipt by the Respondent's Project Coordinator of any notice or communication from EPA relating to this Order shall constitute receipt by the Respondent.

27. EPA has designated Frank Gardner of the Emergency and Enforcement Response Branch, Region I, as its On-Scene Coordinator ("OSC"). Except as otherwise provided in this Order, the Respondent shall direct all submissions required by this Order to the OSC at the U.S. Environmental Protection Agency, Region I, One Congress Street, Suite 1100, Mail Code HBR, Boston, Massachusetts 02114-2023, (617) 918-1278, by Overnight Delivery.

28. EPA and Respondent shall have the right, subject to Paragraph 26, to change their respective designated OSC or Project Coordinator. The Respondent shall notify EPA **seven (7) days** before such a change is made. The initial notification may be made orally, but shall be

promptly followed by a written notice.

VIII. WORK TO BE PERFORMED

29. The Respondent shall perform, at a minimum, all actions necessary to implement the Statement of Work attached as Appendix D of this Order. The work required under this Order includes addressing the clean up of PCB-contaminated soils on the Olympia Property. Included in this response action is the cleanup of PAH contaminated soil identified in the ROD. In addition, the work required under this Order includes additional data gathering and site characterization of the TCE-contaminated soils and an evaluation of and recommendation for clean up technologies to address the TCE-contaminated soil on the Olympia Property. After the work is successfully completed, EPA and Respondent anticipate entering into a subsequent Order to implement the clean up of the TCE-contaminated soils on the Olympia Property.

30. Work Plan and Implementation.

a. Within **thirty (30) days** after the Effective Date of this Order, Respondent shall submit to EPA for approval the first draft Work Plan identified in the SOW for performing the removal action generally described in Paragraph 29 above. Each subsequent Work Plan shall be submitted for approval by EPA in accordance with the schedule and requirements outlined in the SOW.

b. EPA may approve, disapprove, require revisions to, or modify draft Work Plans in whole or in part. If EPA requires revisions, the Respondent shall submit a revised draft Work Plan within **seven (7) days** of receipt of EPA's notification of the required revisions. The Respondent shall implement each Work Plan as approved in writing by EPA in accordance with the schedule approved by EPA. Once approved, or approved with modifications, the Work Plan, the schedule, and any subsequent modifications shall be incorporated into and become fully enforceable under this Order.

c. The Respondent shall not commence any Work except in conformance with the terms of this Order. The Respondent shall not commence implementation of the Work Plan developed hereunder until receiving written EPA approval pursuant to Paragraph 30(b).

31. **Health and Safety Plan.** Within **thirty (30) days** after the Effective Date, the Respondent shall submit for EPA review and comment a plan that ensures the protection of the public health and safety during performance of on-Site work under this Order. This plan shall be prepared in accordance with EPA's Standard Operating Safety Guide (PUB 9285.1-03, PB 92-963414, June 1992). In addition, the plan shall comply with all currently applicable Occupational Safety and Health Administration ("OSHA") regulations found at 29 C.F.R. Part 1910. If EPA determines that it is appropriate, the plan shall also include contingency planning. The Respondent shall incorporate all changes to the plan recommended by EPA and shall implement

the plan during the pendency of the removal action.

32. Quality Assurance and Sampling.

a. All sampling and analyses performed pursuant to this Order shall conform to EPA direction, approval, and guidance regarding sampling, analytical and quality - assurance/quality control ("QA/QC") activities, assessments, data validation, and chain of custody procedures. In accordance with "Quality Assurance/Quality Control Guidance for Removal Activities: Sampling QA/QC Plan and Data Validation Procedures" (OSWER Directive No. 9360.4-01, April 1, 1990), the Respondent will develop a Generic QA Project Plan and site specific sampling and analysis plans (SAPs). The Respondent shall ensure that laboratories used to perform site analysis will operate under QA/QC programs documented in Laboratory QA Plans and will conduct analysis in accordance with standards operating procedures that comply with appropriate EPA guidance and methodologies. EPA may consider laboratories accredited under the National Environmental Laboratory Accreditation Program ("NELAP") as meeting the QA/QC requirements.

b. Upon request by EPA, the Respondent shall have such a laboratory analyze samples submitted by EPA for QA monitoring. The Respondent shall provide to EPA the QA/QC procedures followed by all sampling teams and laboratories performing data collection and/or analysis.

c. Upon request by EPA, Respondent shall allow EPA or its authorized representatives to take split and/or duplicate samples. The Respondent shall notify EPA not less than **three days** in advance of any sample collection activity, unless shorter notice is agreed to by EPA. EPA shall have the right to take any additional samples that EPA deems necessary. Upon request, EPA shall allow the Respondent to take split or duplicate samples of any samples it takes as part of its oversight of the Respondent's implementation of the Work.

33. Post-Removal Site Control. In accordance with the Work Plan schedule, or as otherwise directed by EPA, the Respondent shall submit a proposal for post-removal site control consistent with Section 300.415(f) of the NCP and OSWER Directive No. 9360.2-02. Upon EPA approval, the Respondent shall implement such controls and shall provide EPA with documentation of all post-removal site control arrangements.

34. Reporting.

a. The Respondent shall submit a written progress report to EPA concerning actions undertaken pursuant to this Order every 30th day after the date of receipt of EPA's approval of the first Work Plan required under the SOW until termination of this Order, unless otherwise directed in writing by the OSC. These reports shall describe all significant developments during the preceding period, including the actions performed and any problems

encountered, analytical data received during the reporting period, and the developments anticipated during the next reporting period, including a schedule of actions to be performed, anticipated problems, and planned resolutions of past or anticipated problems.

b. The Respondent shall submit two copies of all plans, reports or other submissions required by this Order, the Statement of Work, or any approved work plan. Upon request by EPA, the Respondent shall submit such documents in electronic form.

c. The Respondent, who owns and controls the property at the Site, shall, at least 30 days prior to the conveyance of any interest in real property at the Site, give written notice that the property is subject to this Order to the transferee and written notice to EPA and the Commonwealth of Massachusetts of the proposed conveyance, including the name and address of the transferee. The Respondent, who owns and controls property at the Site, also agrees to require that their successors comply with the immediately preceding sentence and Sections IX (Site Access) and X (Access to Information).

35. **Final Report.** Within **fifteen (15) days** after completion of all Work required by this Order, the Respondent shall submit for EPA review and approval a final report summarizing the actions taken to comply with this Order. The final report shall conform, at a minimum, with the requirements set forth in Section 300.165 of the NCP entitled "OSC Reports." The final report shall include a good faith estimate of total costs or a statement of actual costs incurred in complying with the Order, a listing of quantities and types of materials removed off-Site or handled on-Site, a discussion of removal and disposal options considered for those materials, a listing of the ultimate destination(s) of those materials, a presentation of the analytical results of all sampling and analyses performed, and accompanying appendices containing all relevant documentation generated during the removal action (e.g., manifests, invoices, bills, contracts, and permits). The final report shall also include the following certification signed by a person who supervised or directed the preparation of that report:

"Under penalty of law, I certify that to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of the report, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

36. **Off-Site Shipments.**

a. The Respondent shall, prior to any off-Site shipment of Waste Material from the Site to an out-of-state waste management facility, provide written notification of such shipment of Waste Material to the appropriate state environmental official in the receiving facility's state and to the On-Scene Coordinator. However, this notification requirement shall not apply to any off-Site shipments when the total volume of all such shipments will not exceed 10 cubic yards.

1. The Respondent shall include in the written notification the following information: 1) the name and location of the facility to which the Waste Material is to be shipped; 2) the type and quantity of the Waste Material to be shipped; 3) the expected schedule for the shipment of the Waste Material; and 4) the method of transportation. The Respondent shall notify the state in which the planned receiving facility is located of major changes in the shipment plan, such as a decision to ship the Waste Material to another facility within the same state, or to a facility in another state.

2. The identity of the receiving facility and state will be determined by the Respondent following the award of the contract for the removal action. The Respondent shall provide the information required by Paragraphs 36(a) and 36(b) as soon as practicable after the award of the contract and before the Waste Material is actually shipped.

b. Before shipping any hazardous substances, pollutants, or contaminants from the Site to an off-site location, the Respondent shall obtain EPA's certification that the proposed receiving facility is operating in compliance with the requirements of CERCLA Section 121(d)(3), 42 U.S.C. § 9621(d)(3), and 40 C.F.R. 300.440. The Respondent shall only send hazardous substances, pollutants, or contaminants from the Site to an off-site facility that complies with the requirements of the statutory provision and regulation cited in the preceding sentence.

IX. SITE ACCESS

37. If the Site, or any other property where access is needed to implement this Order, is owned or controlled by the Respondent, such Respondent shall, commencing on the Effective Date, provide EPA, the Commonwealth, and their representatives, including contractors, with access at all reasonable times to the Site, or such other property, for the purpose of conducting any activity related to this Order.

38. Where any action under this Order is to be performed in areas owned by or in possession of someone other than the Respondent, the Respondent shall use its best efforts to obtain all necessary access agreements **within ten (10) days** after the Effective Date, or as otherwise specified in writing by the OSC. The Respondent shall immediately notify EPA if after using their best efforts they are unable to obtain such agreements. For purposes of this Paragraph, "best efforts" includes the payment of reasonable sums of money in consideration of access. The Respondent shall describe in writing its efforts to obtain access. EPA may then assist the Respondent in gaining access, to the extent necessary to effectuate the response actions described herein, using such means as EPA deems appropriate.

39. Notwithstanding any provision of this Order, EPA and the Commonwealth retain all of their access authorities and rights, including enforcement authorities related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

X. ACCESS TO INFORMATION

40. The Respondent shall provide to EPA and the Commonwealth, upon request, copies of all documents and information within their possession or control or that of their contractors or agents relating to activities at the Site or to the implementation of this Order, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information related to the Work. The Respondent shall also make available to EPA and the Commonwealth, for purposes of investigation, information gathering, or testimony, their employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.

41. The Respondent may assert business confidentiality claims covering part or all of the documents or information submitted to EPA and the Commonwealth under this Order to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Documents or information determined to be confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies documents or information when they are submitted to EPA and the Commonwealth, or if EPA has notified the Respondent that the documents or information are not confidential under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, Subpart B, the public may be given access to such documents or information without further notice to the Respondent.

42. The Respondent may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If the Respondent asserts such a privilege in lieu of providing documents, they shall provide EPA and the Commonwealth with the following: 1) the title of the document, record, or information; 2) the date of the document, record, or information; 3) the name and title of the author of the document, record, or information; 4) the name and title of each addressee and recipient; 5) a description of the contents of the document, record, or information; and 6) the privilege asserted by the Respondent. However, no documents, reports or other information created or generated pursuant to the requirements of this Order shall be withheld on the grounds that they are privileged.

43. No claim of confidentiality shall be made with respect to any data, including, but not limited to, all sampling, analytical, monitoring, hydro-geologic, scientific, chemical, or engineering data, or any other documents or information evidencing conditions at or around the Site.

XI. RECORD RETENTION

44. Until 10 years after the Respondent's receipt of EPA's notification pursuant to Section XXVII (Notice of Completion), the Respondent shall preserve and retain all non-identical copies

of records and documents (including records or documents in electronic form) now in its possession or control or which come into its possession or control that relate in any manner to the performance of the Work or the liability of any person under CERCLA with respect to the Site, regardless of any corporate retention policy to the contrary. Until 10 years after the Respondent's receipt of EPA's notification pursuant to Section XXVII (Notice of Completion), the Respondent shall also instruct its contractors and agents to preserve all documents, records, and information of whatever kind, nature or description relating to performance of the Work.

45. At the conclusion of this document retention period, the Respondent shall notify EPA and the Commonwealth at least 90 days prior to the destruction of any such records or documents, and, upon request by EPA or the Commonwealth, the Respondent shall deliver any such records or documents to EPA or the Commonwealth. The Respondent may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If the Respondent asserts such a privilege, it shall provide EPA or the Commonwealth with the following: 1) the title of the document, record, or information; 2) the date of the document, record, or information; 3) the name and title of the author of the document, record, or information; 4) the name and title of each addressee and recipient; 5) a description of the subject of the document, record, or information; and 6) the privilege asserted by the Respondent. However, no documents, reports or other information created or generated pursuant to the requirements of this Order shall be withheld on the grounds that they are privileged.

46. The Respondent hereby certifies individually that to the best of its knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed or otherwise disposed of any records, documents or other information (other than identical copies) relating to its potential liability regarding the Site since notification of potential liability by EPA or the State or the filing of suit against it regarding the Site and that it has fully complied with any and all EPA requests for information pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. § 6927.

XII. COMPLIANCE WITH OTHER LAWS

47. The Respondent shall perform all actions required pursuant to this Order in accordance with all applicable local, state, and federal laws and regulations except as provided in Section 121(e) of CERCLA, 42 U.S.C. § 9621(e), and 40 C.F.R. §§ 300.400(e) and 300.415 (j). In accordance with 40 C.F.R. § 300.415 (j), all on-Site actions required pursuant to this Order shall, to the extent practicable, as determined by EPA, considering the exigencies of the situation, attain applicable or relevant and appropriate requirements ("ARARs") under federal environmental or state environmental or facility siting laws. The Respondent shall identify ARARs in the first Work Plan subject to EPA approval.

XIII. EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES

48. In the event of any action or occurrence during performance of the Work which causes or threatens a release of Waste Material from the Site that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, the Respondent shall immediately take all appropriate action. The Respondent shall take these actions in accordance with all applicable provisions of this Order, including, but not limited to, the Health and Safety Plan, in order to prevent, abate or minimize such release or endangerment caused or threatened by the release. The Respondent shall also immediately notify the OSC or, in the event of his unavailability, the Regional Duty Officer, Emergency Planning and Response Branch, EPA Region I, at (617) 723-8928, and the National Response Center at (800) 424-8802 of the incident or Site conditions. In the event that Respondent fails to take appropriate response action as required by this Paragraph, and EPA takes such action instead, EPA may seek all costs of the response action not inconsistent with the NCP in a subsequent action.

49. In addition, in the event of any release of a hazardous substance from the Site, the Respondent shall immediately notify the OSC and the National Response Center at (800) 424-8802. Respondent shall submit a written report to EPA within 7 days after each release, setting forth the events that occurred and the measures taken or to be taken to mitigate any release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release. This reporting requirement is in addition to, and not in lieu of, reporting under Section 103(c) of CERCLA, 42 U.S.C. § 9603(c), and Section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. § 11004, *et seq.*

XIV. AUTHORITY OF ON-SCENE COORDINATOR

50. The OSC shall be responsible for overseeing the Respondent's implementation of this Order. The OSC shall have the authority vested in an OSC by the NCP, including the authority to halt, conduct, or direct any Work required by this Order undertaken at the Site. Absence of the OSC from the Site shall not be cause for stoppage of work unless specifically directed by the OSC.

XV. DISPUTE RESOLUTION

51. Unless otherwise expressly provided for in this Order, the dispute resolution procedures of this Section shall be the exclusive mechanism for resolving disputes arising under this Order. The Parties shall attempt to resolve any disagreements concerning this Order expeditiously and informally.

52. If the Respondent objects to any EPA action taken pursuant to this Order it shall notify EPA in writing of its objection(s) within **ten (10) days** of Respondent's knowledge of such action, unless the objection(s) has/have been resolved informally. EPA and Respondent shall have **fourteen (14) days** from EPA's receipt of the Respondent's written objection(s) to resolve

the dispute through formal negotiations (the "Negotiation Period"). The Negotiation Period may be extended at the sole discretion of EPA.

53. Any agreement reached by the parties pursuant to this Section shall be in writing and shall, upon signature by both parties, be incorporated into and become an enforceable part of this Order. If the Parties are unable to reach an agreement within the Negotiation Period, an EPA management official at the branch chief level or higher will issue a written decision on the dispute to the Respondent. EPA's decision shall be incorporated into and become an enforceable part of this Order. The Respondent's obligations under this Order shall not be tolled by submission of any objection for dispute resolution under this Section. Following resolution of the dispute, as provided by this Section, the Respondent shall fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or with EPA's decision, whichever occurs.

XVI. FORCE MAJEURE

54. The Respondent agrees to perform all requirements of this Order within the time limits established under this Order, unless the performance is delayed by a *force majeure*. For purposes of this Order, a *force majeure* is defined as any event arising from causes beyond the control of the Respondent, or of any entity controlled by the Respondent, including but not limited to its contractors and subcontractors, that delays or prevents performance of any obligation under this Order despite the Respondent's best efforts to fulfill the obligation. *Force majeure* does not include financial inability to complete the Work, or increased cost of performance, or a failure to attain performance standards set forth in the Action Memorandum.

55. If any event occurs or has occurred that may delay the performance of any obligation under this Order, whether or not caused by a *force majeure* event, the Respondent shall notify EPA orally within **three (3) days** of when the Respondent first knew that the event might cause a delay. Within **seven (7) days** thereafter, the Respondent shall provide to EPA in writing an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; the Respondent's rationale for attributing such delay to a *force majeure* event if they intend to assert such a claim; and a statement as to whether, in the opinion of the Respondent, such event may cause or contribute to an endangerment to public health, welfare or the environment. Failure to comply with the above requirements shall preclude the Respondent from asserting any claim of *force majeure* for that event for the period of time of such failure to comply and for any additional delay caused by such failure.

56. If EPA agrees that the delay or anticipated delay is attributable to a *force majeure* event, the time for performance of the obligations under this Order that are affected by the *force majeure* event will be extended by EPA for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the *force majeure* event

shall not, of itself, extend the time for performance of any other obligation. If EPA does not agree that the delay or anticipated delay has been or will be caused by a *force majeure* event, EPA will notify the Respondent in writing of its decision. If EPA agrees that the delay is attributable to a *force majeure* event, EPA will notify the Respondent in writing of the length of the extension, if any, for performance of the obligations affected by the *force majeure* event.

XVII. STIPULATED PENALTIES

57. Respondent shall be liable to EPA for stipulated penalties in the amount of \$1,000 per day for each and every failure to comply with requirements of this Order, unless excused under Section XVI (*Force Majeure*). "Compliance" by the Respondent shall include completion of the activities under this Order or any work plan or other plan approved under this Order identified below in accordance with all applicable requirements of law, this Order, the SOW, and any plans or other documents approved by EPA pursuant to this Order and within the specified time schedules established by and approved under this Order.

58. All penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs, and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. However, stipulated penalties shall not accrue: 1) with respect to a deficient submission under Section VIII (Work to be Performed), during the period, if any, beginning on the 31st day after EPA's receipt of such submission until the date that EPA notifies the Respondent of any deficiency; and 2) with respect to a decision by EPA under Paragraph 52 of Section XV (Dispute Resolution), during the period, if any, beginning on the 21st day after the Negotiation Period begins until the date that the EPA management official issues a final decision regarding such dispute. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Order.

59. Following EPA's determination that the Respondent has failed to comply with a requirement of this Order, EPA may give the Respondent written notification of the failure and describe the noncompliance. EPA may send the Respondent a written demand for payment of the penalties. However, penalties shall accrue as provided in the preceding Paragraph regardless of whether EPA has notified the Respondent of a violation.

60. All penalties accruing under this Section shall be due and payable to EPA within 30 days of the Respondent's receipt from EPA of a demand for payment of the penalties, unless the Respondent invokes the dispute resolution procedures under Section XV (Dispute Resolution). All payments to EPA under this Section shall be paid by certified or cashier's check(s) made payable to "EPA Hazardous Substances Superfund," shall be mailed to:

U.S. EPA
Region I
P. O. Box 360197M

Pittsburgh, PA 15251

shall indicate that the payment is for stipulated penalties, and shall reference the EPA Region and Site/Spill ID Number 0146, the EPA Docket Number 01-2003-0023, and the name and address of the party making payment. Copies of check(s) paid pursuant to this Section, and any accompanying transmittal letter(s), shall be sent to the EPA OSC.

61. The payment of penalties shall not alter in any way Respondent's obligation to complete performance of the Work required under this Order.

62. Penalties shall continue to accrue during any dispute resolution period, but need not be paid until 15 days after the dispute is resolved by agreement or by receipt of EPA's decision.

63. If the Respondent fails to pay stipulated penalties when due, EPA may institute proceedings to collect the penalties, as well as Interest. The Respondent shall pay Interest on the unpaid balance, which shall begin to accrue on the date of demand made pursuant to Paragraph 59. Nothing in this Order shall be construed as prohibiting, altering, or in any way limiting the ability of EPA to seek any other remedies or sanctions available by virtue of the Respondent's violation of this Order or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Sections 106(b) and 122(l) of CERCLA, 42 U.S.C. §§ 9606(b) and 9622(l), and punitive damages pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3). Provided, however, that EPA shall not seek civil penalties pursuant to Section 106(b) or 122(l) of CERCLA or punitive damages pursuant to Section 107(c)(3) of CERCLA for any violation for which a stipulated penalty is provided herein, except in the case of a willful violation of this Order, or in the event that EPA assumes performance of a portion or all of the Work pursuant to Paragraph 67 of Section XIX. Notwithstanding any other provision of this Section, EPA may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this Order.

XVIII. COVENANT NOT TO SUE BY EPA

64. In consideration of the actions that will be performed and the payments that will be made by the Respondent under the terms of this Order, and except as otherwise specifically provided in this Order, EPA covenants not to sue or to take administrative action against the Respondent pursuant to Section 106 of CERCLA, 42 U.S.C. § 9606 for performance of the Work. This covenant not to sue shall take effect upon the Effective Date and is conditioned upon the complete and satisfactory performance by the Respondent of all obligations under this Order. This covenant not to sue extends only to the Respondent and does not extend to any other person.

XIX. RESERVATIONS OF RIGHTS BY EPA

65. Except as specifically provided in this Order, nothing herein shall limit the power and

authority of EPA or the United States to take, direct, or order all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants or contaminants, or hazardous or solid waste on, at, or from the Site. Further, nothing herein shall prevent EPA from seeking legal or equitable relief to enforce the terms of this Order, from taking other legal or equitable action as it deems appropriate and necessary, or from requiring Respondent in the future to perform additional activities pursuant to CERCLA or any other applicable law.

66. The covenant not to sue set forth in Section XVIII above does not pertain to any matters other than those expressly identified therein. EPA reserves, and this Order is without prejudice to, all rights against Respondent with respect to all other matters, including, but not limited to:

- a. claims based on a failure by the Respondent to meet a requirement of this Order;
- b. liability for costs incurred or to be incurred by the United States, including but not limited to, the costs incurred under this Order;
- c. liability for performance of response actions, other than the Work;
- d. criminal liability;
- e. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;
- f. liability arising from the past, present, or future disposal, release or threat of release of Waste Materials outside of the Site; and
- g. liability for costs incurred or to be incurred by the Agency for Toxic Substances and Disease Registry related to the Site.

67. Work Takeover. In the event EPA determines that the Respondent has ceased implementation of any portion of the Work, is seriously or repeatedly deficient or late in its performance of the Work, or is implementing the Work in a manner which may cause an endangerment to human health or the environment, EPA may assume the performance of all or any portions of the Work as EPA determines necessary. The Respondent may invoke the procedures set forth in Section XV (Dispute Resolution) to dispute EPA's determination that takeover of the Work is warranted under this Paragraph. EPA may seek all costs incurred in performing the Work in a subsequent action. Notwithstanding any other provision of this Order, EPA retains all authority and reserves all rights to take any and all response actions authorized by law.

XX. COVENANT NOT TO SUE BY RESPONDENT

68. The Respondent covenants not to sue and agrees not to assert any claims or causes of action against the United States, or its contractors or employees, with respect to the Work or this Order, including, but not limited to:

a. any direct or indirect claim for reimbursement from the Hazardous Substance Superfund established by 26 U.S.C. § 9507, based on Sections 106(b)(2), 107, 111, 112, or 113 of CERCLA, 42 U.S.C. §§ 9606(b)(2), 9607, 9611, 9612, or 9613, or any other provision of law;

b. any claim arising out of response actions at or in connection with the Site, including any claim under the United States Constitution, the Commonwealth Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, as amended, or at common law; or

c. any claim against the United States pursuant to Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 and 9613, relating to the Site.

69. Except as provided in Paragraph 71 (Waiver of Claims), these covenants not to sue shall not apply in the event the United States brings a cause of action or issues an order pursuant to the reservations set forth in Paragraphs 66 (b), (c), and (e) - (g), but only to the extent that Respondent's claims arise from the same response action, response costs, or damages that the United States is seeking pursuant to the applicable reservation.

70. Nothing in this Agreement shall be deemed to constitute approval or preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. 300.700(d).

71. The Respondent agrees not to assert any claims and to waive all claims or causes of action that it may have for all matters relating to the Site, including for contribution, against any person where the person's liability to the Respondent with respect to the Site is based solely on having arranged for disposal or treatment, or for transport for disposal or treatment, of hazardous substances at the Site, or having accepted for transport for disposal or treatment of hazardous substances at the Site, if

a. the materials contributed by such person to the Site containing hazardous substances did not exceed the greater of (i) 0.002% of the total volume of waste at the Site, or (ii) 110 gallons of liquid materials or 200 pounds of solid materials.

b. This waiver shall not apply to any claim or cause of action against any person meeting the above criteria if EPA has determined that the materials contributed to the Site by such person contributed or could contribute significantly to the costs of response at the Site. This waiver also shall not apply with respect to any defense, claim, or cause of action that the

Respondent may have against any person if such person asserts a claim or cause of action relating to the Site against the Respondent.

XXI. OTHER CLAIMS

72. By issuance of this Order, the United States and EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of the Respondent. The United States or EPA shall not be deemed a party to any contract entered into by the Respondent or their directors, officers, employees, agents, successors, representatives, assigns, contractors, or consultants in carrying out actions pursuant to this Order.

73. Except as expressly provided in Section XX and Section XVIII (Covenant Not to Sue by EPA), nothing in this Order constitutes a satisfaction of or release from any claim or cause of action against the Respondent or any person not a party to this Order, for any liability such person may have under CERCLA, other statutes, or the common law, including but not limited to any claims of the United States for costs, damages and interest under Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607.

74. No action or decision by EPA pursuant to this Order shall give rise to any right to judicial review, except as set forth in Section 113(h) of CERCLA, 42 U.S.C. § 9613(h).

XXII. CONTRIBUTION PROTECTION

75. The Parties agree that the Respondent is entitled, as of the Effective Date, to protection from contribution actions or claims as provided by Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4), for "matters addressed" in this Order. The "matters addressed" in this Order are the Work. Except as provided in Section XX, nothing in this Order precludes the United States or the Respondent from asserting any claims, causes of action, or demands against any persons not parties to this Order for indemnification, contribution, or cost recovery.

XXIII. INDEMNIFICATION

76. The Respondent shall indemnify, save and hold harmless the United States, its officials, agents, contractors, subcontractors, employees and representatives from any and all claims or causes of action arising from, or on account of, negligent or other wrongful acts or omissions of the Respondent, its officers, directors, employees, agents, contractors, or subcontractors, in carrying out actions pursuant to this Order. In addition, the Respondent agrees to pay the United States all costs incurred by the United States, including but not limited to attorneys fees and other expenses of litigation and settlement, arising from or on account of claims made against the United States based on negligent or other wrongful acts or omissions of the Respondent, its officers, directors, employees, agents, contractors, subcontractors and any persons

acting on their behalf or under their control, in carrying out activities pursuant to this Order. The United States shall not be held out as a party to any contract entered into by or on behalf of the Respondent in carrying out activities pursuant to this Order. Neither the Respondent nor any such contractor shall be considered an agent of the United States.

77. The United States shall give the Respondent notice of any claim for which the United States plans to seek indemnification pursuant to this Section and shall consult with the Respondent prior to settling such claim.

78. The Respondent waives all claims against the United States for damages or reimbursement or for set-off of any payments made or to be made to the United States, arising from or on account of any contract, agreement, or arrangement between the Respondent and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays. In addition, the Respondent shall indemnify and hold harmless the United States with respect to any and all claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between the Respondent and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays.

XXIV. INSURANCE

79. At least 7 days prior to commencing any on-Site work under this Order, the Respondent shall secure, and shall maintain for the duration of this Order, comprehensive general liability insurance and automobile insurance with limits of one million dollars, combined single limit. Within the same time period, the Respondent shall provide EPA with certificates of such insurance and a copy of each insurance policy. In addition, for the duration of the Order, the Respondent shall satisfy, or shall ensure that their contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing the Work on behalf of the Respondent in furtherance of this Order. If the Respondent demonstrates by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in an equal or lesser amount, then the Respondent need provide only that portion of the insurance described above which is not maintained by such contractor or subcontractor.

XXV. FINANCIAL ASSURANCE

80. By letter dated January 29, 2003, Respondent has stated that it has sufficient financial assets to complete the Work required under this Order.

XXVI. MODIFICATIONS

81. The OSC may make modifications to any plan or schedule or Statement of Work in

writing or by oral direction. Any oral modification will be memorialized in writing by EPA promptly, but shall have as its effective date the date of the OSC's oral direction. Any other requirements of this Order may be modified in writing by mutual agreement of the parties.

82. If the Respondent seeks permission to deviate from any approved work plan or schedule or Statement of Work, the Respondent's Project Coordinator shall submit a written request to EPA for approval outlining the proposed modification and its basis. The Respondent may not proceed with the requested deviation until receiving oral or written approval from the OSC pursuant to Paragraph 81.

83. No informal advice, guidance, suggestion, or comment by the OSC or other EPA representatives regarding reports, plans, specifications, schedules, or any other writing submitted by the Respondent shall relieve the Respondent of its obligation to obtain any formal approval required by this Order, or to comply with all requirements of this Order, unless it is formally modified.

XXVII. NOTICE OF COMPLETION OF WORK

84. When EPA determines, after EPA's review of the Final Report, that all Work has been fully performed in accordance with this Order, with the exception of any continuing obligations required by this Order, including post-removal site controls or record retention, EPA will provide written notice to the Respondent. If EPA determines that any such Work has not been completed in accordance with this Order, EPA will notify the Respondent, provide a list of the deficiencies, and require that the Respondent modify the Work Plan if appropriate in order to correct such deficiencies. The Respondent shall implement the modified and approved Work Plan and shall submit a modified Final Report in accordance with the EPA notice. Failure by the Respondent to implement the approved modified Work Plan shall be a violation of this Order.

XXVIII. SEVERABILITY/INTEGRATION/APPENDICES

85. If a court issues an order that invalidates any provision of this Order or finds that the Respondent has sufficient cause not to comply with one or more provisions of this Order, the Respondent shall remain bound to comply with all provisions of this Order not invalidated or determined to be subject to a sufficient cause defense by the court's order.

86. This Order and its appendices constitute the final, complete and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Order. The parties acknowledge that there are no representations, agreements or understandings relating to the settlement other than those expressly contained in this Order. The following appendices are attached to and incorporated into this Order: Appendix A - EPA Action Memorandum signed on March 3, 2003; Appendix B - Olympia Property; Appendix C - Map of Site; and, Appendix D - Statement of Work.

XXIX. EFFECTIVE DATE

87. This Order shall be effective **three (3) days** after Respondent has been given notice that the Order is signed by the Acting Director, Office of Site Remediation and Restoration, Region I.

The undersigned representative of the Respondent certifies that they fully authorized to enter into the terms and conditions of this Order and to bind the party it they represent to this document.

Agreed this 12th day of March, 2003.

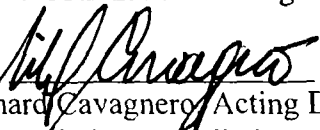
By: David P. Rosenblatt

David P. Rosenblatt, Esq.

For Respondent Olympia Nominee Trust

Title Counsel to Olympia Nominee Trust

It is so ORDERED and Agreed this 12th day of March, 2003.

BY:  DATE: 3-12-03
Richard Cavagnero, Acting Director
Office of Site Remediation and Restoration
Region I
U.S. Environmental Protection Agency

EFFECTIVE DATE: March 17, 2003

Appendix A

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND - REGION I
1 CONGRESS STREET, SUITE 1100 - HBR
BOSTON, MA 02114-2023

Enforcement Confidential Materials Attached

MEMORANDUM

DATE: February 14, 2003

SUBJECT: Request for a Removal Action at the Wells G & H Site (Olympia Property), Woburn, Middlesex County, Massachusetts - **ACTION MEMORANDUM**

FROM: Frank Gardner, On-Scene Coordinator *Frank Gardner*
Site Evaluation and Response Section II

THROUGH: Steven R. Novick, Chief
Site Evaluation and Response Section II

Arthur V. Johnson III, Acting Chief
Emergency Planning & Response Branch

TO: Richard Cavagnero, Acting Director
Office of Site Remediation and Restoration

I. PURPOSE

The purpose of this Action Memorandum is to request and document approval of the proposed removal action at the Wells G&H Site (the site), which is located in Woburn, Middlesex County, Massachusetts. The Olympia Property source area (Olympia Property), the focus of this removal action, is a 21-acre property located at 60 Olympia Avenue and within the boundaries of the Wells G & H Superfund Site. Hazardous substances present in surface and subsurface soils, if not addressed by implementing the response actions selected in this Action Memorandum, will continue to pose a threat to human health and the environment. There are no nationally significant or precedent-setting issues associated with this site, and there has been no use of the OSC's warrant authority.

II. CONDITIONS AND BACKGROUND

CERCLIS Identifier: MAD980732168 Site Identifier: 0146
Category of Removal: Time-Critical

A. Site Description

1. Removal Site Evaluation

In a memorandum dated July 23, 2002 the remedial program notified the Emergency Planning and Response Branch (EPRB) of the presence of high levels of contaminants in surface soils and subsurface soils acting as an ongoing source of ground water contamination at this site and requested that a time critical removal action be undertaken. On August 14, 2002, EPA initiated a Preliminary Assessment/Site Investigation (PA/SI) which included walking the site with the remedial project manager, reviewing the site file, and meeting with the entire remedial case team. Recent data collected from the site by the remedial program and its contractors indicates significantly higher levels of polychlorinated biphenyls (PCBs) and trichloroethylene (TCE) than previously believed to exist at the Olympia Property in this area. The PA/SI was concluded, and a removal action was recommended in a closure memo dated October 11, 2002.

2. Physical Location

The Wells G & H Superfund Site covers approximately 330 acres in Woburn, Middlesex County, Massachusetts. The Site includes the aquifer and land mass area located within the zone of contribution to the City of Woburn's two municipal drinking water wells known as Wells G & H. The boundaries of the Site are Interstate 95 to the north, Interstate 93 to the east, the Boston and Maine Railroad to the west, and Salem Street to the south. The Olympia Property is one of the five primary source areas of contamination within the Federal Superfund Site. The other four source areas are the W.R Grace Co. Conn. property, the UniFirst Corporation property, the New England Plastics property, and the Wildwood Conservation Corporation property. The 21-acre Olympia Property is located within the boundaries of the Superfund Site at 60 Olympia Avenue. The property is listed on Book 1000, Page 49, Document Number 684793 at the South Middlesex Registry of Deeds. Geographic coordinates for the Olympia Property are approximately 42.494719 N latitude and 71.130839 W longitude.

3. Site Characteristics

The Olympia Property is rectangular in shape with its long axis oriented approximately north-south with a 120-foot wide "panhandle" strip of land extending approximately 400 feet to the south from the southwest corner of the lot. The Aberjona River flows north to south through the Olympia Property and splits the property. The property on the east side of the river is occupied by a one-story commercial building used as a trucking terminal. The portion of the property to the west of the river consists of undeveloped woodland and wetland areas. It is this western portion of the property that was the location of a former drum disposal area.

Vehicular access to the site is from the south via a dirt road leading from Salem Street. A locking gate on this dirt road prevents unauthorized vehicles from entering the site.

However, pedestrian access to the site is not restricted. The property has a history of unauthorized access for dirt bike riding and homeless encampments. Land use is mixed with a number of residences, busy commercial areas, and industrial facilities located within 1/4 mile. Three schools and day care centers are located within one mile. The City of Woburn has plans to construct a park and soccer fields along the Aberjona River and adjacent to the Olympia Property.

4. Release or Threatened Release into the Environment of a Hazardous Substance or Pollutant or Contaminant

Hazardous substances that pose a threat of release include, but are not limited to, the following:

- trichloroethylene (TCE) up to 110 mg/kg and
- polychlorinated biphenyls (PCBs) up to 33 mg/kg.

TCE-contaminated soils are present in the subsurface at approximately eight to twenty feet below grade in the former drum disposal area. These soils have contaminated ground water and continue to act as an ongoing source of ground water contamination. The associated ground water plume has contributed to the contamination of the aquifer that serves Wells G & H. In addition, PCBs (Aroclor 1260) are present in exposed surface soils in the former drum disposal area. The site-specific risk-based cleanup levels for these constituents in soil are 0.0127 mg/kg for TCE and 1.04 mg/kg for PCBs.¹

5. NPL Status

The site was proposed for listing on the National Priorities List in December 1982. Final listing on the NPL occurred in September 1983. EPA is the lead agency for this site.

B. Other Actions to Date

Between 1981 and 1989, EPA and several potentially-responsible parties (PRPs) conducted a series of investigations to determine the nature and extent of contamination. The results of these studies indicated a broad area of ground water contamination with multiple source areas surrounding Wells G & H. EPA issued a Record of Decision (ROD) on September 14, 1989 which called for cleanup of all five source area properties including extraction and treatment of contaminated ground water at these properties.

Over the past decade, construction of the selected remedy has been largely completed by PRPs at the other four source areas under a 1991 Consent Decree. Over 200 million gallons of ground water have been pumped and treated, and over 4000 pounds of volatile organic contaminants have been removed. Groundwater pump and treat systems are in their tenth year of operation at two

¹Clement Associates, Inc., for Ebasco Services Incorporated (under EPA Contract 68-01-7250), *Endangerment Assessment for the Wells G&H Site*, December 1988.

separate properties. A combined pump and treat/air sparging/soil vapor extraction system is in its fifth year of operation at a third property. Another soil vapor extraction system successfully remediated soil at the fourth property. The need for implementing groundwater remediation at that property is being assessed in light of the success of the soil vapor extraction.

Other than the removal of the drums in 1986-1987, no cleanup actions have been conducted to date at the Olympia Property. The owners of the Olympia Property are a non-settling party that did not enter into the 1991 Consent Decree. The remedial program is currently working on the pre-remedial design, but federal funding is not currently available to implement the cleanup. The absence of cleanup actions at this source area prevents the overall site from attaining post-ROD milestones. EPA performed extensive sampling and analysis of soil and groundwater during the spring of 2002. These recent data indicate that contaminant levels are significantly higher than those documented during the Remedial Investigation in the late 1980's. This will be the third removal action conducted at the site.

C. State and Local Authorities' Roles

The Massachusetts Department of Environmental Protection (DEP) was a party to the 1991 Consent Decree. Although EPA is the lead Agency for the NPL Site, the DEP maintains an active role in review of the Federal-lead activities. DEP has classified the site as "adequately regulated" under the Massachusetts Contingency Plan. The DEP is currently overseeing a petroleum spill remedial activity on the trucking terminal portion of the Olympia Property. The City of Woburn is a property owner within the NPL site and is party to the Consent Decree.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

A. Threats to Public Health or Welfare

Based on site conditions and information available on the hazardous substances present, the site poses the following threats to public health or welfare:

"Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants" [§300.415(b)(2)(i)].

PCBs are present in exposed surface soils. Although a gate limits vehicular access, pedestrian access to the site is unrestricted. The site has a history of unauthorized dirt bike use and homeless encampments. Those who enter the site may be at risk of direct contact exposure to PCBs.

"Actual or potential contamination of drinking water supplies or sensitive ecosystems" [§300.415(b)(2)(ii)].

The TCE-contaminated soils at the Olympia Property comprise one of the five sources contaminating the drinking water aquifer that serves Wells G & H. No cleanup efforts have yet been undertaken to address the Olympia soils. Instead, these soils continue to act as an ongoing source of ground water contamination to this drinking water aquifer.

"High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate" [§300.415(b)(2)(iv)].

The PCB-contaminated surface soils are devoid of vegetation and exposed to the elements. These conditions make the PCBs accessible to receptors and potentially subject to migration via wind or runoff.

"The availability of other appropriate federal or state response mechanisms to respond to the release" [§300.415(b)(2)(vii)].

Neither state nor local authorities have the resources to remove the PCB- and TCE-contaminated soils from the site.

The PCB-contaminated surface soils at the Olympia Property pose a direct contact threat to local residents and others who may enter the site. According to 2000 census data, 768 people live within a ½-mile radius of the site, and 6,891 people live within a 1-mile radius. The TCE-contaminated soils continue to act as an ongoing source of ground water contamination to a drinking water aquifer. In contrast to the other four source areas which have already been largely addressed, no cleanup efforts have yet been undertaken to address the Olympia soils. New sampling data collected from the site indicate that TCE levels at the Olympia Property are significantly higher than previously known.

Trichloroethylene (TCE), when inhaled, may cause headaches, lung irritation, dizziness, poor coordination, and difficulty concentrating in the short term. Long term exposure can cause nerve, lung, kidney, and liver damage. Ingestion of TCE over long periods of time may also cause impaired immune system function and impaired fetal development in pregnant women, although the extent of some of these effects is not yet clear. Dermal contact with TCE may cause skin rashes. In addition, TCE is believed to be carcinogenic.² PCBs are known to cause acne-like lesions and rashes known as chloracne. They may also cause developmental and reproductive problems. PCBs are probable human carcinogens, suspected of causing liver cancer.³

²Agency for Toxic Substances and Disease Registry (ATSDR), U.S. Department of Health and Human Services, Public Health Service, *Toxicological Profile for Trichloroethylene*, September 1997.

³Agency for Toxic Substances and Disease Registry (ATSDR), U.S. Department of Health and Human Services, Public Health Service, *Toxicological Profile for Polychlorinated Biphenyls*, November 2000.

B. Threats to the Environment

The site poses the following threat to the environment:

"Actual or potential contamination of drinking water supplies or sensitive ecosystems" [§300.415(b)(2)(ii)]

Ground water at the site recharges the Aberjona River, which runs through the center of the Olympia Property. TCE-contaminated ground water may therefore flow into the river and the associated wetland via recharge. PCBs in surface soils are accessible to biological receptors and pose a threat of bioaccumulating in the food chain. Animals identified as possible receptors in this wetland ecosystem include birds such as american woodcock, herons, and mallards, mammals such as raccoons, muskrat, beavers and shrews, and various fish and aquatic invertebrates.⁴ The Aberjona River is part of the Mystic River watershed and flows into the Mystic Lakes, which discharge into the Mystic River approximately 6 miles downstream and south of the site. One of the most ecological diverse and valuable wetlands associated with the Aberjona River is the 38-acre Wells G & H wetland, of which the Olympia Property is part.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances at or from this site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Proposed Action Description

EPA is currently negotiating with the PRP for the Olympia Property with the goal of having the PRP conduct the removal action under an Administrative Order on Consent. In the event that these negotiations do not lead to a PRP-lead action, EPA is prepared to undertake the work on a fund-lead basis, provided that adequate funds are available. In either case, the removal action will protect public health, welfare and the environment from the threats identified in Section III by eliminating a source of ongoing TCE contamination to ground water and removing surface soils contaminated with PCBs from the site.

⁴Clement Associates, Inc., for Ebasco Services Incorporated (under EPA Contract 68-01-7250), *Endangerment Assessment for the Wells G & H Site*, December 1988.

Removal activities are anticipated to include the following: (1) conducting a site walk with the cleanup contractor, (2) making improvements to the site access road to allow mobilization of heavy equipment, (3) conducting additional sampling as needed to further define the extent of contamination, (4) excavating PCB-contaminated surface soils, (5) addressing TCE-contaminated subsurface soils through a combination of treatment and/or excavation and/or capping in place, (6) disposing of waste streams at approved off-site disposal facilities, and (7) restoring disturbed areas of the site to vegetative cover. If subsurface soils are excavated as part of this removal action, it is anticipated that sheet piling would be needed to ensure a safe excavation and a dewatering/carbon treatment system would be needed to handle VOC-contaminated ground water infiltrating the excavation.

2. Contribution to Remedial Performance

Performing this removal action will contribute to remedial performance and protect public health and the environment by removing an ongoing source of ground water contamination and eliminating the potential for exposure to hazardous substances in exposed surface soils. The lack of cleanup activities to date at the Olympia Property has prevented the Wells G & H site from attaining Superfund milestones since the ROD was issued in 1989, even though cleanup is well underway at the other four source areas. This removal action will enable the entire site to move forward in attaining the post-ROD milestones.

3. Description of Alternative Technologies

EPA plans to utilize alternative on-site field screening and analytical techniques for determining the extent of contamination and for measuring the effectiveness of the removal action. The use of alternative treatment technologies with regard to the TCE-contaminated subsurface soils will also be examined as site work progresses.

4. Applicable or Relevant and Appropriate Regulations

The cleanup standards, standards of control, and other substantive requirements that have been identified to-date, are listed below, and are applicable within the confines of EPA Publication 540/P-91/011, "Superfund Removal Procedures: Guidance on the Consideration of ARARs During Removal Actions."

FEDERAL; ACTION-SPECIFIC

29 CFR Parts 1910, 1926, and 1904: OSHA Health and Safety Regulations

40 CFR Part 262 Standards Applicable to Generators of Hazardous Waste:

Subpart B - The Manifest

262.20 : General requirements for manifesting

262.21 : Acquisition of manifests

262.22 : Number of copies of manifests

262.23 : Use of the manifest

Subpart C - Pre-Transport Requirements

262.30 : Packaging

262.31 : Labeling

262.32 : Marking

Subpart D - Recordkeeping and Reporting

262.40 : Recordkeeping

40 CFR Part 264 Standards for Owners and Operators of Hazardous waste Treatment, Storage, and Disposal Facilities:

Subpart I - Use and Management of Containers

264.171 : Condition of containers

264.172 : Compatibility of waste with containers

264.173 : Management of containers

264.174 : Inspections

264.175 : Containment

40 CFR Part 268 Hazardous and Solid Waste Amendments Land Disposal Restrictions Rule

Subpart C - Prohibitions on Land Disposal

268.34 : Waste specific prohibitions - toxicity characteristic metal wastes

Subpart D - Treatment Standards

Subpart F - Prohibitions on Storage

268.50 : Prohibitions on storage of restricted wastes

40 CFR Part 300.440 Procedures for Planning and Implementing Off-Site Response Actions (Off-Site Rule)

40 CFR Part 761.60 and Parts 761.202-218 : TSCA requirements for disposal of PCBs

49 CFR Parts 171-179 : Department of Transportation Regulations for Transport of Hazardous Materials

The OSC has requested in writing that the State of Massachusetts identify additional state ARARS for consideration by the OSC. Additional ARARs may be identified as the removal action progresses. In accordance with the National Contingency Plan and the EPA Guidance documents, the OSC will determine the practicability of complying with all identified ARARs.

5. Community Relations

The Wells G & H site is well known to the local community. As it has throughout the remedial process, EPA will remain highly involved with the community throughout the removal action. EPA will coordinate closely with state and local authorities on community relations activities such as press releases, fact sheets, and/or public meetings.

B. Estimated Costs and Schedule

The OSC has prepared an independent government estimate of the cost associated with carrying out the proposed actions outlined above. A summary of this estimate is given below. The action is anticipated to be complete within twelve months.

<u>Regional Removal Allowance Costs</u>	
ERRS ⁵ Contractor	\$ 1,500,000 ⁶
<u>Other Extramural Costs Not Funded from the Regional Allowance</u>	
START ⁷ Contractor, including multiplier costs	<u>\$ 100,000</u>
Subtotal, Extramural Costs	\$ 1,600,000
10% Extramural Costs Contingency	<u>\$ 160,000</u>
TOTAL EXTRAMURAL PROJECT CEILING	\$ 1,760,000

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

In the absence of the removal action described herein, conditions at the site can be expected to remain unaddressed, and threats associated with the abandoned hazardous substances will persist.

VII. OUTSTANDING POLICY ISSUES

There are no known policy issues that are outstanding with respect to this removal action.

VIII. ENFORCEMENT

The total estimated EPA costs for the removal would be:

$\$1,760,000$ (extramural costs) + $\$100,000$ (EPA's direct intramural costs) = $\$1,860,000$

$\$1,860,000 \times 1.2702$ (regional indirect rate) = $\$2,362,572$

⁵Emergency Rapid Response Services

⁶This is only a tentative cost estimate. This estimate will be refined as various cleanup options for the TCE-contaminated soils are addressed, and the removal plans are further refined.

⁷Superfund-Technical Assessment and Response Team

The total EPA costs for this removal action based on full-cost accounting practices that will be eligible for costs recovery are estimated to be \$2,362,572.⁸

ATTACHED TO THIS DOCUMENT - FOR INTERNAL DISTRIBUTION ONLY

IX. RECOMMENDATION

This decision document represents the selected removal action for the Wells G & H Site - Olympia Property in Woburn, Massachusetts, developed in accordance with CERCLA, as amended, and not inconsistent with the National Contingency Plan (NCP). The basis for this decision will be documented in the Administrative Record to be established for this site.

Conditions at the site meet the NCP Section 300.415(b)(2) criteria for a removal due to the following:

"Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants" [§300.415(b)(2)(i)],

"Actual or potential contamination of drinking water supplies or sensitive ecosystems" [§300.415(b)(2)(ii)],

"High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate" [§300.415(b)(2)(iv)], and

"The availability of other appropriate federal or state response mechanisms to respond to the release [§300.415(b)(2)(vii)].

⁸Direct Costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimate indirect cost rate expressed as a percentage of site-specific direct costs, consistent with the full cost accounting methodology effective October 2, 2000. These estimates do not include pre-judgement interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual total costs from this estimate will affect the United States' right to cost recovery.

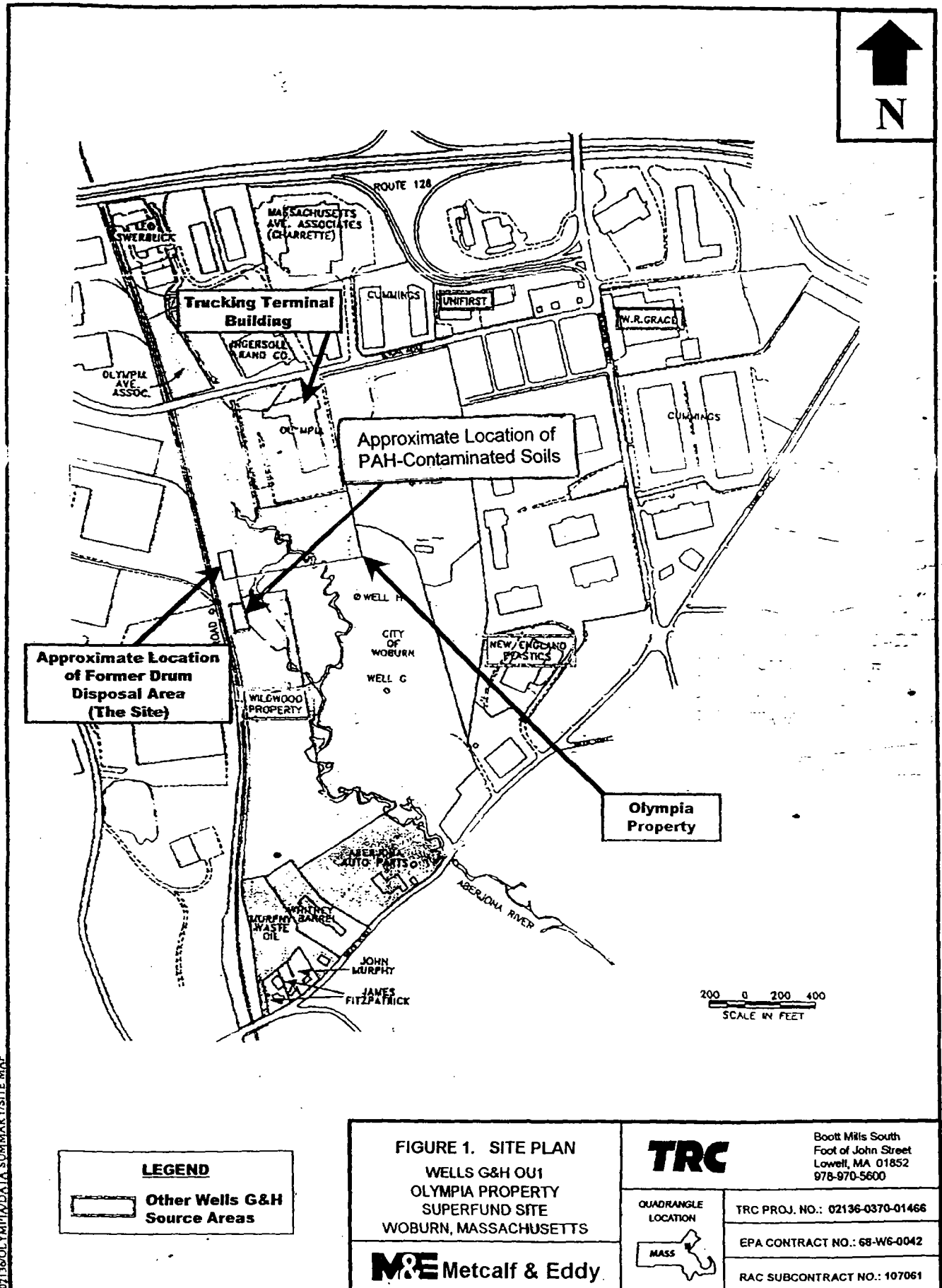
I recommend you approve \$1,760,000.00 to initiate the removal action proposed above, of which as much as \$1,660,000.00 is from the EPA removal allowance.

APPROVAL: _____

DATE: _____

DISAPPROVAL: _____

DATE: _____



0213601 YMPIA/DA/TA SUMMARY/SITE MAP

APPENDIX D

STATEMENT OF WORK

Wells G&H Site - Olympia Property

Woburn, Massachusetts

Pursuant to the

Administrative Order for Removal Action

Docket No. 01-2003-0023

I. INTRODUCTION

This scope of work ("SOW") identifies the components of work required pursuant to the Administrative Order on Consent ("AOC") for Removal Action (Docket No. 01-2003-0023). Under this SOW, Respondent shall prepare and submit to EPA the items identified below. Respondent shall implement or submit each item under EPA approval. The removal action conducted under this Administrative Order and SOW shall abate the potential danger to public health or welfare or the environment which may otherwise result from the actual or threatened release of hazardous substances at or from the Wells G&H Site - Olympia Property in Woburn, Massachusetts ("Site") in the former drum disposal area.

A. This scope of work is limited to addressing the cleanup of PCB-contaminated soils and further characterization of TCE-contaminated soils from the former drum disposal area at the Site and the cleanup of an area of PAH-contaminated soils as identified in the Record of Decision ("ROD") for the Site. Available data indicate that the PCB-contaminated surface soils are located at grade where they pose a direct contact threat. The TCE-contaminated soils are located at a depth of approximately eight to twenty feet below grade where they continue to act as an ongoing source of groundwater contamination. The PAH-contaminated soils, although not required under the AOC, have been included in this SOW at the request of the Respondent. The location, cleanup methodology (excavation with off-site disposal), and cleanup levels for these PAH-contaminated soils are specific in the ROD.

B. Respondent shall establish and maintain physical access to the former drum disposal area and the PAH-contaminated soils area for personnel, equipment, and supplies, including EPA and EPA's contractors and representatives. In order to provide access for heavy equipment, it may be necessary to reinforce the bridge and the culvert over which the dirt access road passes.

C. Respondent shall communicate freely with the On Scene Coordinator (OSC) prior to and during development of plans and deliverables, and continually throughout implementation of approved plans. Open and routine communication will result in the most effective and efficient cleanup. Draft documents may be submitted for consideration prior to submissions of final documents required by a specific date.

D. All actions taken by Respondent shall not be inconsistent with the National Contingency Plan (NCP), found in Title 40, Part 300 of the Code of Federal Regulations (40 CFR 300).

E. Each required deliverable generated pursuant to the specific requirements below must be approved by the OSC prior to implementation.

F. The OSC may require Respondent to alter or expand upon plans after approval, based on new information, changed Site conditions, or subsequently identified deficiencies. Such alterations or expansions may only concern addressing PCB-contaminated soils and

further characterization of TCE-contaminated soils in the former drum disposal area.

G. By telephone or otherwise, Respondent shall inform the OSC of any field activity not less than five work days prior to the event.

In conducting all activities under this SOW, Respondent shall:

A. Comply with Section 300.150 of the NCP, which references the standards promulgated by the Occupational Safety and Health Administration (Hazardous Waste Operations and Emergency Response, 29 C.F.R. 1910.120), including development and implementation of a health and safety program. This program shall include the steps that will be taken to protect on-site workers and the general public from hazards associated with any open excavations, hazardous substances brought to the surface during site activities, or any other hazards associated with on-site activities.

B. Provide the OSC, upon request, all quality assurance/quality control procedures followed by the supervising contractor and their laboratory(s) pertaining to all sampling and analytical work performed pursuant to this Order.

II. WORK TASKS

A. WITHIN 15 DAYS OF THE EFFECTIVE DATE

The Respondent's contractor shall mobilize to the Site to collect field data needed to further characterize the Site. Such field data may include soil sampling to determine the extent of TCE-contaminated soils in the vicinity of the sewer easements and railroad tracks as well as other field data needed to generate proposed cleanup standards for the site (e.g. organic carbon content, soil partitioning coefficient, etc.). The Respondent shall forward all data collected under this work task to EPA within five days of receipt from the laboratory.

B. WITHIN 30 DAYS OF THE EFFECTIVE DATE

Respondent shall submit to EPA for approval, a work plan for immediate excavation and off-site disposal of PCB-contaminated surface soils in the former drum disposal area that shall address the following applicable criteria as found in Section 300.415 (b)(2) of the NCP:

"(i) Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants";

"(iv) High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate".

The work plan submitted for EPA approval shall include, *as applicable*:

1. Immediate excavation and off-site disposal of PCB-contaminated surface soils;
2. Soil cleanup levels;
3. Description of how soil remaining in place will be sampled to assure that cleanup levels are being met;
4. Odor and dust control measures for excavation activities and on-site staging;
5. Air monitoring/sampling plan that will be protective of on-site personnel and the surrounding community;
6. Type of equipment to be used;
7. Restoration plans that include backfilling, grading, and revegetating;
8. The name of the laboratory that will be used to analyze any samples collected and the EPA standard method to be used for the analysis (maximum 2 week turnaround time on sample analysis);
9. The name, address, and RCRA identification number of the proposed disposal facility(s);
10. A detailed project time line which provides time frames associated with each activity stated in plan. This shall include the maximum time that any hazardous substance shall remain on-site once it has been excavated.

C. WITHIN 20 DAYS OF EPA APPROVAL OF THE PCB WORK PLAN:

Implementation of the approved plan for excavation and off-site disposal of PCB-contaminated surface soils shall begin.

D. WITHIN 90 DAYS OF THE EFFECTIVE DATE

Respondent shall submit to EPA for approval, a work plan to address the TCE-contaminated soils in the former drum disposal area that shall address the following applicable criteria as found in **Section 300.415 (b)(2)** of the NCP:

"(i) Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants";

"(ii) Actual or potential contamination of drinking water supplies or sensitive ecosystems";

The work plan submitted for EPA approval shall include, as applicable:

1. Results of soil, ground water, or other field sampling efforts undertaken to further define the nature and extent of TCE contamination, if necessary;
2. A detailed discussion and comparison of technical options for addressing the TCE-contaminated soils. EPA encourages Respondent to evaluate various technical options and combinations of such options in order to develop a technically sound approach to satisfying the requirements of this removal action. This discussion shall include engineering assumptions and cost backup for each technology.
3. Cleanup levels, including a detailed discussion of the assumptions and modeling parameters used to generate such levels;
4. Description of how soil remaining in place will be sampled to assure that cleanup levels are being met;
5. Discussion of chemical treatment reagents to be used. This discussion shall include calculation of reagent demand and precautions and monitoring needed to ensure that significant pH changes, generation of chlorinated solvent "daughter" compounds, mobilization of chlorinated solvents and/or other constituents (e.g. metals), or other adverse chemical reactions do not occur in the ground water regime or the adjacent wetlands.
6. Odor and dust control measures for all on-site activities and an air monitoring/sampling plan that will be protective of on-site personnel and the surrounding community;
7. Type of equipment to be used;
8. Shoring, sheet piling, or other protective measures to ensure a safe excavation, if applicable;
9. Collection and treatment, if necessary, of ground water that may infiltrate the excavation, if applicable;
10. Provisions for coordinating project activities with the sewer lines and railroad tracks that run adjacent to or through the site;
11. Restoration plans that include backfilling, grading, and revegetating;
12. The name of the laboratory that will be used to analyze any samples collected and the EPA standard method to be used for the analysis;

13. The name, address, and RCRA identification number of proposed disposal facility(s);

14. A detailed project time line which provides time frames associated with each activity stated in plan. This shall include the maximum time that any hazardous substance shall remain on-site once it has been excavated.

D. WITHIN A TIME FRAME TO BE DETERMINED UNDER FUTURE ORDER BY EPA:

Approval of the TCE work plan and implementation thereof shall be addressed under future order by EPA.